

WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP
TEN POST OFFICE SQUARE
BOSTON, MASSACHUSETTS 02109

INTELLECTUAL PROPERTY LAW
PATENTS, TRADEMARKS AND COPYRIGHTS

TELEPHONE
(617) 542-2290
FACSIMILE
(617) 451-0313

STANLEY M. SCHURGIN
CHARLES L. GAGNEBIN III
VICTOR B. LEBOVICI
BEVERLY E. HJORTH
HOLLIDAY C. HEINE, Ph.D.
GORDON R. MORIARTY
JAMES F. THOMPSON
DAVID A. DAGG

THOMAS P. GRODT
RICHARD S. GAMACHE
CHI SUK KIM

OF COUNSEL
ARTHUR S. MORGENSTERN

JOSEPH WEINGARTEN
(1919-1984)

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MESSAGE

PLEASE DELIVER DIRECTLY TO EXAMINER GITOMER

Examiner Gitomer:

Per your request, enclosed is a table showing structures that we believe should be searchable in STN or other databases and which represent the various structures claimed in claim 4 and its dependent claims (claims 4-17).

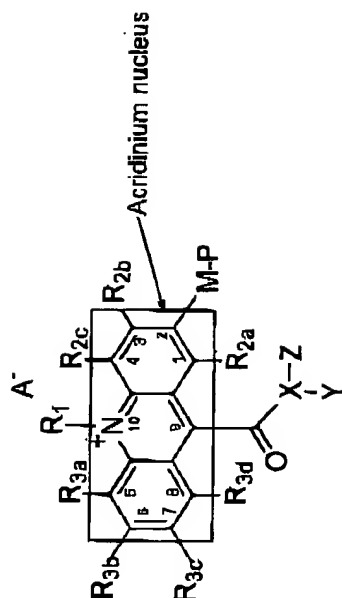

Arthur S. Morgenstern
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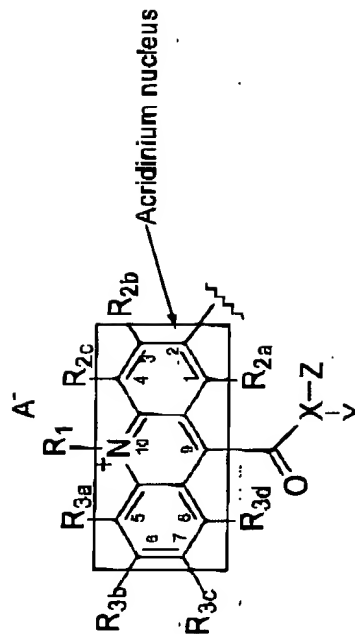
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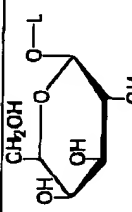
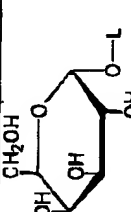
Qingping Jiang, 4/2/03

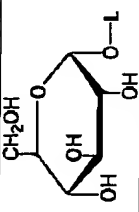
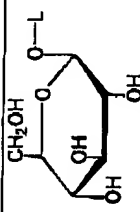
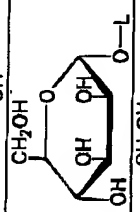
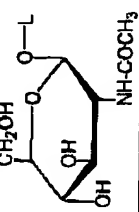
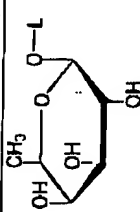
Examples of chemiluminescent substrates of hydrolytic enzymes based on Claim 4



In the table, L equals to Lumi (Luminescent moiety), having the following structure:



M	P	Example of structure L-M-P	Example of hydrolytic enzyme	Support in page # and claims
O	PO ₃ B B is a divalent cation or two monovalent cations. It can be Na ₂ , H ₂ , K ₂ , Ca or Mg.	L-O-PO ₃ Na ₂ L-O-PO ₃ H ₂ L-O-PO ₃ K ₂ L-O-PO ₃ Ca L-O-PO ₃ Mg	Alkaline Phosphatase and Acidic Phosphatase	P.22, L.3-5 P.31, L.11-22 P.32 formula VII Structures 1A, 1C, 1E, 1G and 1I Claims 4-17
O	PO ₃ R	L-O-PO ₃ -R	Phosphodiesterase	P.22, L.3-5
O	$\begin{array}{c} \text{O} \\ \parallel \\ \text{C}-\text{R} \\ \text{R} = \text{alkyl group} \end{array}$	R = alkyl group	Cholinesterase	P.22, L.17-18
O	$\begin{array}{c} \text{O} \\ \parallel \\ \text{C}-\text{R} \\ \text{R} = \text{alkyl group} \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{L}-\text{O}-\text{C}-\text{CH}_3 \end{array}$ $\begin{array}{c} \text{O} \\ \parallel \\ \text{L}-\text{O}-\text{C}-\text{R} \\ \text{R} = \text{long hydrocarbon} \\ \text{chain} \end{array}$	Lipase	P.22, L.17-18
O	SO ₃ B B is a divalent cation or two monovalent cations. It can be Na ₂ , H ₂ , K ₂ , Ca or Mg.	L-O-SO ₃ Na ₂ L-O-SO ₃ H ₂ L-O-SO ₃ K ₂ L-O-SO ₃ Ca L-O-SO ₃ Mg	Sulfatase	P.22, L.17-18
O	Sugar moiety		β-Galactosidase	P.22, L.6-9
O	Sugar moiety		α-Galactosidase	P.22, L.6-9

O	Sugar moiety		α -D(-)-Glucosidase	P.22, L.6-9
O	Sugar moiety		β -Glucosidase	P.22, L.6-9
O	Sugar moiety		α -Mannosidase	P.22, L.6-9
O	Sugar moiety		N-Acetyl- β -D-glucosaminidase	P.22, L.6-9
O	Sugar moiety		β -Fucosidase	P.22, L.6-9
N	$\begin{array}{c} \text{O} \\ \parallel \\ \text{C}-\text{R} \end{array}$ R = peptide moiety	$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{N}-\text{C}-\text{R} \\ \text{L} \end{array}$ R = peptides with different sequences	Various peptidases and proteases depending on sequences of peptides and proteins	P.22, L.10-16
S	$\begin{array}{c} \text{O} \\ \parallel \\ \text{C}-\text{R} \end{array}$ R = alkyl group	$\begin{array}{c} \text{O} \\ \parallel \\ \text{L}-\text{S}-\text{C}-\text{R} \end{array}$ R = alkyl group	Lipase	P.22, L.17-18 Claim 4